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## Research Notes: University of Illinois

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Table 1 (continued)

Genes		a	b	c	d	Sum	%R	SE	Phase*
T245 ( $\underline{T}_1\underline{w}_1\underline{ep}$ ) X Raiden ( $\underline{t}_1\underline{W}_1\underline{Ep}$ )									
$\underline{W}_1\underline{w}_1$	$\underline{T}_1\underline{t}_1$	138	46	42	15	241	51.0	4.8	R
$\underline{W}_1\underline{w}_1$	$\underline{Epep}$	142	42	45	10	239	54.0	5.1	C
$\underline{Epep}$	$\underline{T}_1\underline{t}_1$	141	45	39	14	239	51.8	4.8	R
Cloud ( $\underline{w}_1\underline{Fg}_1\underline{fg}_2$ ) X Harman ( $\underline{W}_1\underline{fg}_1\underline{Fg}_2$ )									
$\underline{W}_1\underline{w}_1$	$\underline{Fg}_1\underline{fg}_1$	76	22	34	9	141	49.0	6.4	R
$\underline{W}_1\underline{w}_1$	$\underline{Fg}_2\underline{fg}_2$	72	26	33	10	141	52.0	6.4	C
$\underline{Fg}_1\underline{fg}_1$	$\underline{Fg}_2\underline{fg}_2$	81	29	24	7	141	47.0	6.5	R
Evans ( $\underline{e}_3\underline{w}_1$ ) X OX27-8 ( $\underline{E}_3\underline{W}_1$ )									
$\underline{W}_1\underline{w}_1$	$\underline{E}_3\underline{e}_3$	137	46	40	14	237	49.5	4.8	C

\* R = repulsion; C = coupling.

#### References

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 Buzzell, R. I., R. L. Bernard and B. R. Buttery. 1974. Inheritance of magenta flower color. Soybean Genet. Newsl. 1: 14-15.  
 Weiss, M. G. 1970. Genetic linkage in soybeans. Linkage Group IV. Crop Sci. 10: 368-370.

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#### 1. Soybean germplasm data bank.

A soybean germplasm data bank has been set up by members of the Department of Agronomy at the University of Illinois, Urbana-Champaign. Information on named soybean varieties, Plant Introductions, Genetic Type Collection lines, Forage Collection varieties, and species collections, has been compiled and

computerized so that it is readily available as a reference source. An information retrieval system enables queries concerning various aspects of the germplasm bank to be answered with a minimum of human effort. The data bank is constantly being updated as new information regarding old varieties is released; and as new varieties appear, they are added to the list.

Consequently, we would be grateful for any information resulting from screening of the germplasm, particularly with regard to disease and insect resistance, physiological and morphological characteristics, which could be entered into the computer data bank and increase its usefulness.

Correspondence concerning germplasm screening, and requests for queries of the data bank on specific items of information, should be addressed to Dr. T. Hymowitz, c/o Dr. C. A. Newell, Department of Agronomy, University of Illinois, Urbana, IL 61801, U.S.A.

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# 1. Cytological abnormalities associated with male sterility genes in soybean.

Singh et al. (1974) reported the inheritance as well as the pollen behaviour of 3 male-sterile lines of soybean, viz: 'Semmes M.S.1', 'Semmes M.S.2' and 'N 69-2774'. They observed monogenic inheritance with sterility being the recessive trait in all these lines. Semmes M.S.1 had nonfunctional pollen but of the same size as that of normal pollen grains; Semmes M.S.2 had no pollen at all, whereas N 69-2774 had nonfunctional pollen but these were much bigger as compared to the normal pollen grains. The present study was undertaken to elucidate the cytological basis for the differential pollen behaviour of these male-sterile lines.

Male-sterile plants from the segregating progeny rows of each of these lines were identified by microscopic examination of the pollen grains at initiation of flowering. Young buds from the male-sterile plants were fixed in